

April 22, 2016

Ms. Marlene H. Dortch Secretary Federal Communications Commission 445 12th Street, S.W. Washington, District of Columbia 20554

RE: Notice of Ex Parte Communication, Commercial Availability of Navigation Devices, CS Docket No. 97-80; Protecting and Promoting the Open Internet, GN Docket No. 14-28; Expanding Consumers' Video Navigation Choices, MB Docket No. 16-42; Protecting the Privacy of Customers of Broadband and Other Telecommunications Services, WC Docket No. 16-106

Dear Ms. Dortch:

On April 20, 2016, the ACT | The App Association met with Stephanie Weiner, Senior Legal Advisor, Wireline, and Edward Smith, Legal Advisor, Wireless, Engineering and Technology, Consumer Affairs, and Incentive Auction of Chairman Wheeler's office at the Federal Communications Commission main offices in Washington, DC, during which ACT | The App Association expressed views related to the above-referenced dockets. In attendance from ACT | The App Association and its membership were: Brian Scarpelli, ACT | The App Association; Miguel Castro, Melvicorp LLC; Jeff Hadfield, 1564B; and Scott Weiner, NeuEon.

In this meeting, ACT | The App Association described how it represents more than 5,000 small- and medium-sized app development companies and technology firms across the world. As the world has quickly embraced mobile technology and apps, ACT | The App Association's members have been creating innovative solutions that drive the global digital economy across modalities and segments, such as by improving workplace productivity, accelerating academic achievement, helping people lead healthier lifestyles, and augmenting the consumer interaction and experience with subscribed video programming. ACT | The App Association shared its *State of the App Economy 2016*, an annually-released report that provides economic analysis of this \$120 billion industry, which continues to grow.





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¹ ACT | The App Association, "State of the App Economy 2016" (Jan. 2016), *available at* http://actonline.org/state-of-the-app-economy-2016/.

ACT | The App Association also noted its commitment to working collaboratively with the Commission and other public and private stakeholders to ensure a secure cyberspace. including through its current co-chairmanship of the Commission Communications Security, Reliability, and Interoperability Council Working Group 6 which has developed "security-bydesign" recommendations and best practices for securing the core communications network and continues to develop voluntary assurance mechanisms around these recommendations and best practices. ACT | The App Association also described its role as the leading voice for small- and medium-sized software app development companies on the intersection of legitimate law enforcement and national security interests and the need to protect Americans' privacy and secure their data from unauthorized access by third parties. While encryption and other technical measures to protect data are foundational to the functioning of the entire digital economy, businesses incorporating these measures face calls to build "backdoors" for the purposes of potential government access. To inform this debate, ACT | The App Association has released the results of a poll that included 1,250 interviews with registered American voters. The poll demonstrates strong public support for robust encryption technology to keep the information stored on electronic devices and shared online private and secure. These results were shared with this meeting's attendees.

ACT | The App Association also discussed the Commission's Open Internet rules' approach to "zero rating" or "free data" plans, 2 noting our agreement with the Commission's conclusion that such arrangements can benefit consumers and competition, and further represent a pathway to success for app makers across economic segments. Due to the variety of zero rating use cases in place today, as well as other unknown innovations that will develop in connection with the dynamic app-enabled internet ecosystem, ACT | The App Association urged the Commission to continue allowing experimentation with different types of zero rating arrangements while providing oversight under the no-unreasonable interference/disadvantage standard to prevent abuses that would distort the market or negatively affect competition based on demonstrated harms.

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² Protecting and Promoting the Open Internet, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, FCC 15-24, ¶¶ 151-152 (rel. Mar. 9, 2015).

ACT | The App Association next raised the Commission's consideration of its proposal to apply privacy requirements in the broadband internet access service context.³ ACT | The App Association described how app developers highly value end-user privacy and trust, and recognize the need for an FCC regulatory framework for internet service providers based on broadband internet access falling under the Federal Trade Commission's (FTC) common carrier service exemption from FTC oversight. ACT | The App Association noted that legal and regulatory consistency and certainty are integral to the continued success of the app economy that has flourished in the United States under the FTC approach to the use and protection of personal data. ACT | The App Association also urged that the Commission take an approach consistent with that of the FTC, which is built on preventing unfair methods of competition and unfair or deceptive acts or practices in or affecting commerce.⁴ For example, the Commission's proposal to require an opt-in approach for uses of data that have traditionally been permitted under the FTC with an opt-out model could create inconsistent federal agency approaches to the same data, confusing consumers and presenting conflicting requirements that will flow through the Internet ecosystem and disrupt the vibrant app economy, both within the United States and globally.

Finally, ACT | The App Association discussed the Commission's ongoing consideration of rule changes regarding consumer access to multichannel video programming. ACT | The App Association takes no specific position on this rule proposal at this time other than to note our overarching desire to enable consumers to easily access multichannel video programming and to encourage innovation in how programming is accessed. ACT | The App Association explained that this proposal affects our members because apps will have an increasingly pronounced role in advancing the consumer experience with multichannel video programming from one that is constrained to a traditional set-top box to one that is interactive, app-based, and device-agnostic. While the Regulatory Flexibility Act of 1980⁶ (RFA) requires agencies to analyze the economic impacts of new regulations on small businesses and (if those impacts are significant) to examine alternatives that would minimize burdens, ACT | The App Association noted that the Commission's RFA analysis does not include the small business app maker community that interacts with multichannel video programming distributor networks, a key group in the future of consumer access the multichannel video programming. The Commission should also consider the costs and impacts to the small business app

³ Protecting the Privacy of Customers of Broadband and Other Telecommunications Services, WC Docket No. 16-106, *Notice of Proposed Rulemaking*, FCC 16-39 (rel. Apr. 1, 2016).

⁴ 15 U.S.C. § 45(a)(1).

⁵ In the Matter of Expanding Consumers' Video Navigation Choices, MB Docket No. 16-42, Commercial Availability of Navigation Devices, CS Docket No. 97-80, *Notice of Proposed Rulemaking and Memorandum Opinion and Order*, FCC 16-18 (rel. Feb. 18, 2016) ("Set-top Box Proposal").

⁶ Pub. L. No. 96-354, 94 Stat. 1164 (1980) (codified as amended at 5 U.S.C. §§ 601-12).

⁷ See Set-top Box Proposal at Appendix C.

economy members given Congressional concerns that have been raised regarding potential increased consumer costs and impacts on minority and independent programmers.⁸

Pursuant to the Commission's rules,⁹ this *ex parte* notice (with meeting materials appended) is being electronically filed via the Commission's Electronic Comment Filing System and a copy of this submission is being provided electronically to the meeting attendees.

Sincerely,	
<u>/s/</u>	
Brian Scarpelli Senior Policy Counsel	

cc: Stephanie Wiener Edward Smith

ACT | The App Association

Attachments: ACT | The App Association's *State of the App Economy 2016*Purple Insight's memo regarding ACT | The App Association's April 2016- poll on U.S. voter views on encryption

⁸ *E.g.*, Letter from Rep. Yvette D. Clarke, Member of Congress, et al., to Hon. Tom Wheeler, Chairman, Federal Communications Commission (Dec. 1, 2015).

⁹ 47 C.F.R. § 1.1206.

State of the App Economy

4th Edition



Jonathan Godfrey, Courtney Bernard, Nick Miller



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Background | Unicorns & Pots of Gold

In existence less than a decade, the app industry has experienced explosive growth alongside the rise of smartphones. As the most rapidly adopted technology in human history, these devices revolutionized the software industry.

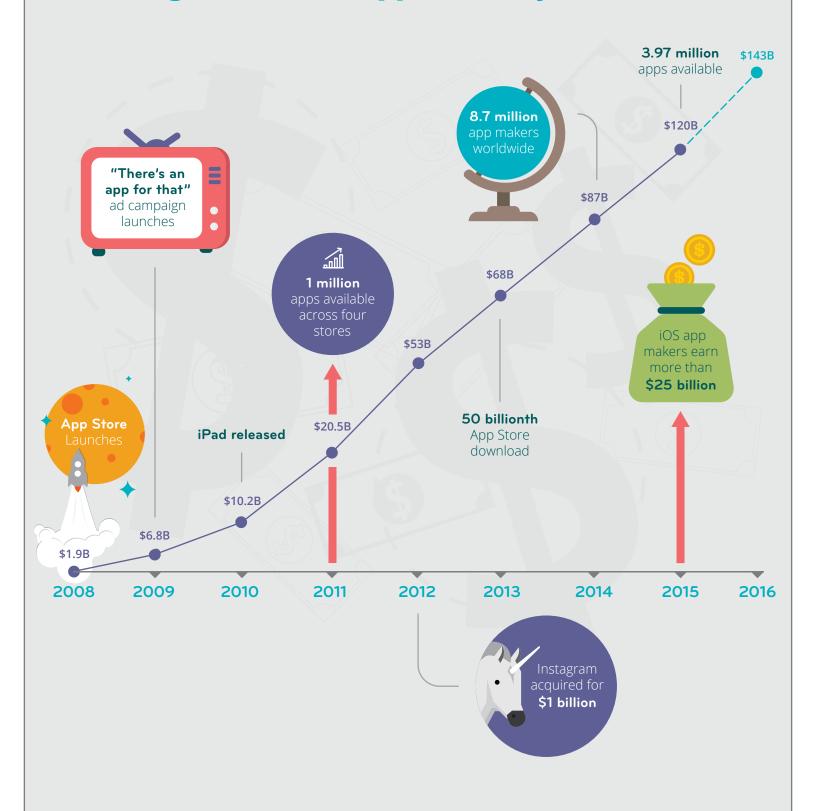
Historically, independent software companies faced steep barriers to entry. Much of their revenue opportunity derived from adding features to existing software products. The introduction of the App Store model changed everything. It allowed developers to create products marketed directly to consumers.

No longer burdened with distribution or processing payments, entrepreneurs today face far fewer obstacles when building a company around an idea. Internet access and the ability to code is all that's needed.

The simplicity of the app marketplace has produced an incredible wave of innovation. A new class of entrepreneurs has emerged who are young in age, but confident and brave enough to believe their ideas can change the world. The intensity of their work ethic matches their desire to succeed.

This success looks different than in almost any other industry. Small companies can scale and grow quickly from any region of the world. Even though the App Economy is less than a decade old, it has produced an astonishing number of companies valued, or acquired, at a billion dollars or more.

Eight Years of App Economy Growth





Summary | Mobile-First Defines Success

Shortly after the Apple App Store launch in 2008, "mobile-first" became the favorite phrase of marketing strategists and forward-thinking CEOs. Retailers like Nordstrom traded cash registers for iPhones and iPads while online properties scrambled to establish a mobile presence. Expectations for the marketplace were so high that Facebook's stock price stumbled after IPO over concerns about mobile revenues.

Fast forward eight years and mobile-first describes market leaders. There are now multiple app stores on different platforms including those from Microsoft, Google, and Amazon. Consumers spend more time on mobile apps than browsing the internet¹ or watching TV.² They are 18 times more loyal to brands on an app than on the mobile web.³ And Facebook's stock has risen over 500 percent as three-quarters of its revenue now comes from mobile.

For the first time, the majority of consumers are turning to mobile devices to shop.⁴ During Thanksgiving week 2015, shoppers spent more than \$2.29 billion on mobile devices.⁵ Even when customers shop in physical store locations, more than half are using their smartphones to research prices.⁶

The State of the App Economy is strong. This \$120 billion ecosystem is led by U.S. companies, the vast majority of which are startups or small businesses. These companies are from everywhere, in communities urban and rural.

As the App Economy continues to grow, so too does the job market. App companies are succeeding in every region of the country, hiring developers, marketers, engineers, and experts in business development and human resources.

State of the App Economy: Top App Companies



Location | Top Apps Succeed Everywhere

Needing only an internet connection and the ability to code, app makers can succeed anywhere. App stores require very little overhead in return for global distribution, transaction management, and a marketing platform.

In the United States, the vast majority of successful app companies are found outside Silicon Valley. Many even choose to operate outside major metropolitan areas.

13% of top app makers are in rural areas

of top app companies are outside Silicon Valley

The ease of entry in the app marketplace has led to dramatic growth outside traditional tech centers. Innovation in the mobile economy is no longer bound to major metropolitan areas or regions historically connected with the tech industry.

Many app companies have found that they don't need to relocate to find success, preferring the quality of life that comes from starting a business in familiar surroundings like Eugene's Silicon Shire⁷ and Cedar Rapids' Silicon Prairie.⁸

App Companies Prosper Across America



Scholly

Connects high school students with college scholarships



Craftsy

Virtual craft classes for more than 5 million customers



Headspace

Guided meditation for 3 million users in 150 countries



Higher Learning Technologies

Mobile study tools for over one million users



The Omni Group

Productivity tools to organize work flow and to-do items



HotSchedules

Labor management tools for the restaurant industry in 26 countries



Size | Small Companies Making it Big

Small companies and startups have thrived in the mobile marketplace. They dominate the revenue rankings and drive innovation in the mobile economy.

The App Store model is the ideal platform for small companies. Their size allows them to be nimble and respond quickly to market opportunities. Since the store manages distribution, payments, and security, a startup can focus almost all of its resources on software development.

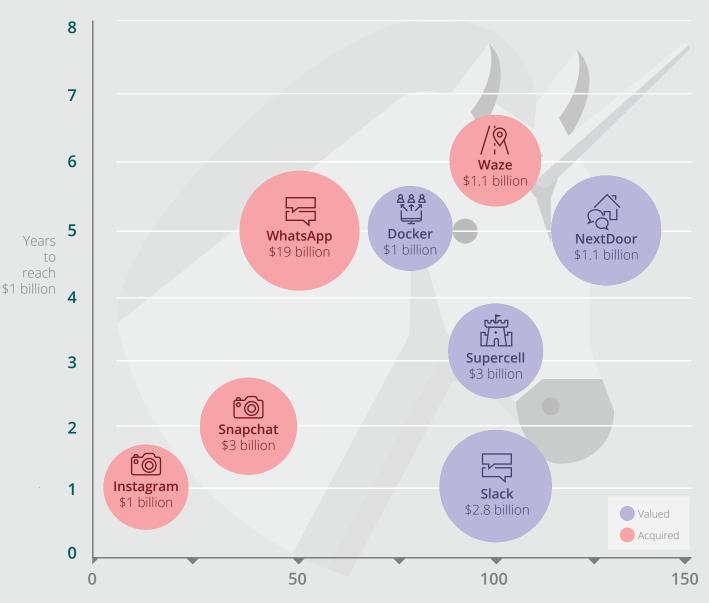
82%
of top app makers are small companies

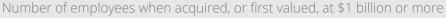
This ease of publishing contributes to dramatically shortened development cycles.

Providing automatic software updates, the App Store enables continuous product improvement. Rapid iteration extends value to users who are more likely to be engaged with an app that evolves to fit specific needs.

These characteristics have fueled astronomical growth. A decade ago, it was inconceivable for companies to reach a billion-dollar valuation in less than five years. In the App Economy, that has become common enough to spawn the term "unicorn." For small companies, the app marketplace provides the ideal environment for rapid growth and innovation.

From 0 to \$1 Billion with Fewer than 150 Employees







Jobs | App Growth Sparks Hiring

The nature of the App Economy means that companies can start anywhere and scale quickly to meet consumer demand. This decentralization has helped the app industry thrive.

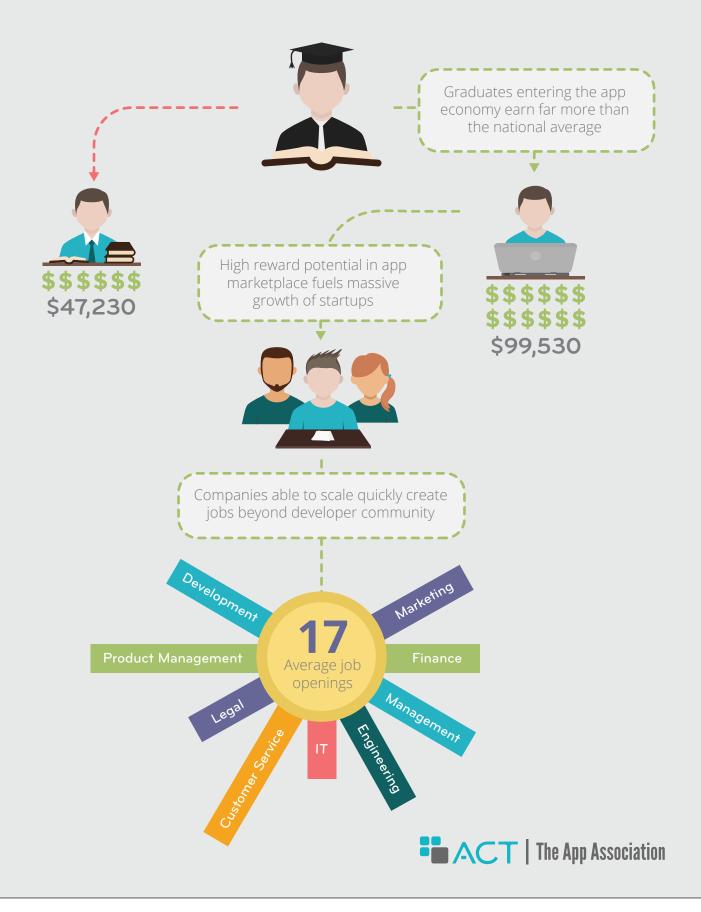
As the industry continues to expand, demand for software developers and engineers is becoming increasingly competitive. Accordingly, these professions are among the best compensated and most rewarding.⁹ In addition to pay, employees cite work environment, benefits, and abundant opportunity as the most attractive features.

Creating a successful app has a broad impact on the job market well beyond traditional tech positions. As an app begins to generate momentum, small teams soon discover they need specialists in marketing, management, business development, and customer support.

A company that recently experienced this growth process is Slack, a productivity app that acquired 1.7 million users before its second birthday. To serve its increasing customer base and enable continued growth, Slack is expanding its workforce across seven different specialties including marketing, customer service, and management.

Job creation in the app industry is occurring in regions all across the country. Nearly three-quarters of these openings are based outside Silicon Valley.

App Economy Creates Job Ecosystem



Health | Better Living Through Mobile

Connected technology is poised to dramatically reshape the healthcare landscape. New regulations to manage costs are spurring innovation. Healthcare providers must now shift from fee-for-service to value-based payments, and the resulting incentives favor outcomes more than procedures. This transition significantly elevates the value of connected health data that comes from remote patient monitoring, chronic condition management, wearable sensors, and apps.

Atlanta-based Rimidi is one company showing the path forward with its Diabetes+Me app. The company's clinical studies demonstrate that it can produce better patient outcomes at reduced cost. Goldman Sachs projects that connected health solutions like Rimidi's will reduce healthcare costs by \$305 billion.

Even the side benefits of connected health are astonishing. Apple recently introduced ResearchKit to connect medical researchers with volunteers who want to share health data for scientific study. The platform provides no direct revenues for Apple, but it's revolutionizing how studies are conducted and accelerating the progress of medical research.

In just 24 hours after its introduction, 11,000 iPhone users signed up for a Stanford cardiology study. Before ResearchKit, that level of engagement would have required 50 medical centers to each spend an entire year finding volunteers.

We have only seen the tip of the iceberg with connected health, but it's clear this technology will have a profound impact on our society. As more studies emerge demonstrating its role in improved health outcomes, industry growth will be substantial and swift.

Connected Health Market Poised for Growth

\$117 billion

connected health market by 2020

Top Opportunities

For: Connected Health Companies

Date: 2016

1. Chronic Condition Management

2. Personal Fitness & Wellness

3. Remote Patient Monitoring

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\$46 billion

86%

of clinicians say mobile apps central to

patient health by 2020

size of RPM market by 2017

The App Association

Trade | Local is Global in Mobile Market

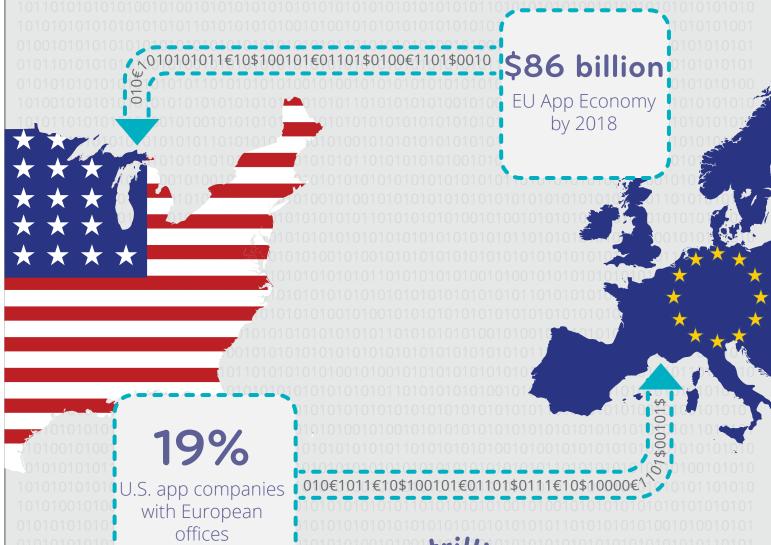
As the biggest digital trade partner for the United States, Europe and the U.S. are inextricably linked. Nearly one-fifth of the top grossing, U.S.-based app companies have operations in Europe. These offices and work spaces are dedicated to serving users throughout the global marketplace. Expansion of American app companies abroad creates jobs in these new markets while also providing essential tools for international enterprise customers.

The emergence of the app store model and the proliferation of cloud services has allowed small app companies to access overseas markets. In the mobile marketplace, app stores use the cloud to connect app makers with customers around the globe while managing transactions in many different currencies. Cloud-based resources also allow early stage companies to scale swiftly to meet demand in a global marketplace.

With fewer than 100 employees, app company Headspace covers two continents with offices in Los Angeles and London. First launched in 2010, the app now serves three million users spanning 150 countries. A top ten health app in dozens of countries, Headspace's rapid growth was fueled by unrestricted, cross-border data flows that allow emerging companies to reach more customers.

Europe will continue to provide opportunity for American companies. By 2018, app makers are poised to earn more than \$85 billion in the EU marketplace.¹²

Digital Trade Critical to App Industry





The App Association

Methodology

ACT | The App Association surveyed more than 500 top grossing apps across a range of categories in the Apple App Store and Google Play, the two largest app markets. A detailed analysis was conducted on each publisher to determine the greatest influences on growth and success in the app economy.

For the purposes of this study, the small company designation coincides with the Small Business Administration's Table of Small Business Size Standards Matched to North American Industry Classification System Codes.

This report was conducted using publicly available data from the Apple App Store, Google Play, government agencies, company statements, and industry publications.



ACT | The App Association represents more than 5,000 app makers and connected device companies in the mobile economy. Organization members are industry leaders and new entrants innovating to improve productivity, accelerate learning, deliver entertainment, and promote healthier lifestyles.

ACT | The App Association regularly conducts research and publishes reports on the mobile ecosystem. It is the leading resource on app industry growth providing guidance on market strategy, global commerce, regulated industries, privacy and security, and intellectual property.

End Notes

¹ Lipsman, A., "Major Mobile Milestones in May: Apps Now Drive Half of All Time Spent on Digital," comScore (June 25, 2014). Available at: http://www.comscore.com/Insights/ Blog/Major-Mobile-Milestones-in-May-Apps-Now-Drive-Half-of-All-Time-Spent-on-Digital

² Khalaf, S., "Mobile to Television: We Interrupt this broadcast (Again)," Flurry (November 18, 2014). Available at: http://flurrymobile.tumblr.com/ post/115194107130/mobile-to-television-we-interrupt-this-broadcast

³ "The 2015 U.S. Mobile App Report," comScore (September 22, 2015). Available at: https://www.comscore.com/Insights/Presentations-and-Whitepapers/2015/The-2015-US-Mobile-App-Report

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⁵ "Live U.S. Retail Data," IBM Benchmark Live (Accessed December 4, 2015). Available at: http://ibmbenchmarklive.mybluemix.net/?cm_mc_ uid=24867024833814083668469&cm_mc_sid_50200000=1448040836#/home

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⁷ Buri McDonald, S., "Technology conference coming to UO campus," The Register-Guard, syndicated by Styrk (August 25, 2015). Available at: http://www.styrk.com/posts/technology-conference-coming-to-uo-campus

⁸ Ford, G., "lowa Startup Accelerator gets national award," The Gazette (September 14, 2015). Available at: http://www.thegazette.com/subject/news/business/iowa-startup-accelerator-gets-national-award-20150914

⁹ "Best Technology Jobs: Software Developer," U.S. News & World Report (Accessed December 17, 2015). Available at: http://money.usnews.com/careers/best-jobs/software-developer

"Occupational Employment Statistics: 15-1132 Software Developers, Applications," The Bureau of Labor Statistics (May 2014). Available at: http://www.bls.gov/oes/current/oes151132.htm

¹⁰ Valenzuela, L., PharmD BCACP et al., "Early Results Support Efficacy and Clinical Efficiency of Diabetes Management Decision Support Software for Blood Glucose Control," Rimidi (November 12, 2015). Available at: http://www.rimidi.com/news/inside-views/dohc-rimidi-early-results/

¹¹ Roman, D. H. & Conlee, K. D., "The Digital Revolution comes to US Healthcare," Goldman Sachs (June 29, 2015). Available at: http://www.scbio.org/resources/Documents/Internet%20of%20Things%20-%20Volume%205%20-%20The%20Digital%20Revolution%20comes%20to%20US%20HC%20-%20Jun%2029,%202015%5B1%5D.pdf

¹² "Study finds a total of 1.8M jobs in the EU app economy, with €17.5bn in revenues taken in by EU app companies in 2013," Eurapp (February 2013). Available at: http://eurapp.eu/2014/02/13/study-finds-total-18-million-jobs-eu-app-economy-€175-billion-revenues-taken-eu-app

Previous Reports in App Economy Series

WWDC Preview: The iOS App Economy 2015

http://actonline.org/2015/06/04/wwdc-preview-the-ios-app-economy/

State of the App Economy 2014

http://actonline.org/2014/10/27/report-state-of-the-app-economy-2014/

App Store After Five Years 2013

http://actonline.org/2013/07/19/app-store-after-five-years/

European App Economy Report 2013

http://actonline.org/2013/09/01/european-app-economy-report-2013/

Apps Across America 2012

http://actonline.org/2012/06/12/apps-across-america/



TO: Interested parties FROM: Purple Insights

RE: Recent polling results for ACT | The App Association

DATE: April 18, 2016

This memo summarizes results from a survey conducted by Purple Insights on behalf of ACT I The App Association. The survey includes 1,250 interviews of registered voters nationwide between April 11th and 14th, 2016. Respondents were randomly selected from a voter file. Fifty-eight percent (58%) of the interviews were completed with voters on landlines and 42% were completed with voters on their cell phones. The margin of error is +/-2.8%. The margin of error for subgroups is higher.

Key Findings:

These survey results demonstrate that US voters strongly support robust encryption technology that keeps the information they store on their electronic devices and share online private and secure. More specific findings include:

- By large majorities, US voters recognize the need for strong privacy protections and data encryption to keep their personal information secure.
- Voters are very concerned about their personal information being accessed by cybercriminals and hackers and believe the threat is increasing.
- Few find current security protections adequate so voters believe tech companies need to continually strengthen data encryption.
- Voters worry that if universal encryption "backdoors" are created, it could be misused and make their personal data more vulnerable.
- Voters say they trust technology companies more than the federal government on data security.

Voters recognize the importance of strong privacy protections and data encryption.

By overwhelming numbers (93%), voters believe that it is important to keep information they store on their electronic devices and in mobile apps or share online secure and private. Eighty-four percent (84%), of voters saying it is "very" important. This sentiment is shared across party, with 81% of Democrats, 86% of independents, and 86% of Republicans saying it is "very" important.

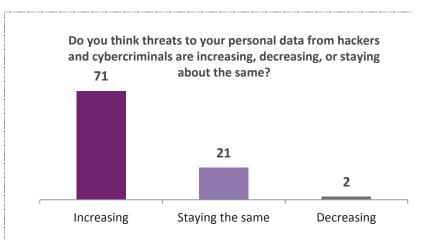
Voters recognize that they store and share more of their information than ever in digital form, both on their devices and online. They see data encryption and security measures as critical to protecting that information from cybercriminals and hackers — and want access to the strongest possible technology to achieve that end.

Now that we share so much more of our personal information online, including photos, messages, and credit cards, it is more important than ever to strengthen how we protect our data.	Consumers should be allowed access to the strongest safeguards available to protect their personal information and security.	Powerful, consumer-focused encryption technology is necessary to ensure that data on my devices and the information that we share with others is secure and protected.	
95% Agree	94% Agree	92% Agree	
81% Strongly Agree	79% Strongly Agree	70% Strongly Agree	

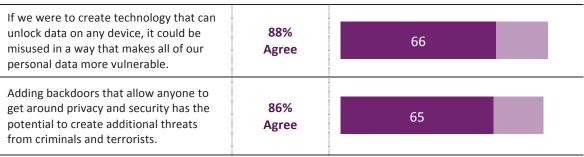
Voters are very concerned that their personal information could be accessed by cybercriminals and hackers, and believe that the threat is increasing.

A large majority (87%) of voters are concerned "that a person or organization they do not trust could gain access to personal and private information" on electronic devices or shared online, with nearly two-thirds (64%) being "very" concerned. The concern doesn't diminish with age; millennial voters are just as concerned as seniors (84% and 83%, respectively). One in three (33%) say their own personal information has been compromised.

Moreover, they believe that the threat from hackers and cybercriminals is growing. Seven in ten (71%) believe the threat to their personal data from is increasing, while only 2% think it is decreasing, and a fifth (21%) say it's staying the same. As with other results in this poll, voters across party share in their beliefs about the increasing threats.



Asked about the possibility of creating a "backdoor" to encryption technology that could be used to access any device, voters are very worried about potential misuse.



*darker shading = "strongly agree"

Voters strongly believe encryption helps keep them safer by protecting their personal data from hackers and cybercriminals. They also agree that weaker data encryption could make key infrastructure more vulnerable to crime and terrorism.

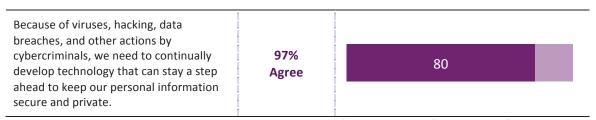


*darker shading = "strongly agree"

Few find current security protections adequate for the evolving threat, so voters believe technology companies need to continually strengthen data encryption.

When voters were asked if technology companies "should continue to build strong, innovation safeguards and strengthen data encryption to keep your information secure" or if "current security protections are adequate," eight in ten (80%) sided with steps technology companies are making to strengthen encryption to adapt to new threats. Only 13% of voters felt current protections were adequate.

Nearly all voters believe data security has to continually evolve to stay a step ahead of cybercriminals.



*darker shading = "strongly agree"

Voters say they trust technology companies more than the federal government on data security.

When it comes to protecting personal digital information, voters trust technology companies over the federal government (54% trust technology companies more, 21% trust the federal government more). Importantly, voters across party share this view.

When it comes to protecting the security of the personal information that you store on your electronic devices and in mobile apps and share online, who do you trust more...?

54%	Technology companies such as Apple, Google, and Facebook	
	The federal government, including federal agencies like the FBI	21%